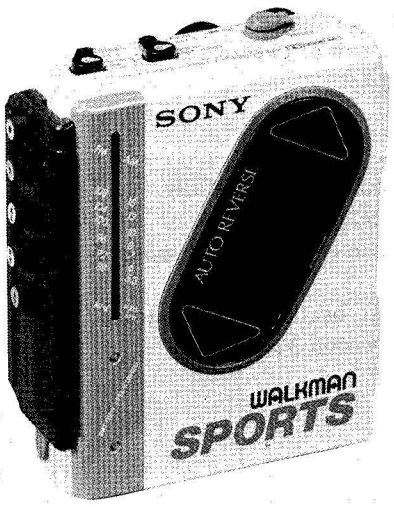
WM-F75

SERVICE MANUAL

US Model
Canadian Model
AEP Model
UK Model
E Model



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SPECIFICATIONS

Tape Transport Mechanism Type | MT-WMF75-29

Radio section

Frequency range
FM: 87.6–108 MHz (for US, Canadian, AEP, UK, E Model)
87.6–107 MHz (for W-Germany Model)
AM: 530–1,605 kHz

Antenna
FM: Headphone cord antenna
AM: Built-in ferrite bar antenna

Tape player section and general

Tape track: 4-track 2-channel stereo
Fast winding time: 2 min. 30 sec. with Sony C-60 cassette
Frequency response: 40–15,000 Hz (with metal tapes or CrO_2 tapes)
40–15,000 Hz (with normal tapes)
Output: Headphones jack (stereo minijack)
load impedance 8–300 ohms
Power output: 10 mW + 10 mW
at 10% harmonic distortion at ac operation

Battery life

Batteries	FM/AM reception	Playback
Sony SUM-3(NS) New Super or Eveready No. 1015	17	4
Sony Eveready AM3 alkaline or Eveready No. 91 alkaline	35	8

(hours)

For maximum performance, we recommend the use of alkaline batteries.

Power requirements
3 V dc, two size AA batteries (IEC designation R6)
DC IN 3 V jack accepts:
Sony EBP-500 battery case (optional)
for use on two size D batteries (IEC designation R20)
Sony AC-D2 ac power adaptor (optional)
for use on 120 V ac, 60 Hz (US, Canadian Model)
for use on 240 V ac, 50 Hz (UK Model)
for use on 220 V ac, 50 Hz (AEP Model)
for use on 110, 120 or 220 V ac, 50/60 Hz (E Model)
Sony DCC-70 car battery cord (optional)
for use with 12 V car battery

Dimensions
Approx. 97.7 × 117.1 × 37.6 mm (w/h/d) ($3\frac{7}{8} \times 4\frac{5}{8} \times 1\frac{1}{2}$ inches)
incl. projecting parts and controls
Approx. 93.7 × 115.8 × 34.6 mm (w/h/d) ($3\frac{3}{4} \times 4\frac{5}{8} \times 1\frac{3}{8}$ inches)
excl. projecting parts and controls

Weight
Approx. 320 g (11.3 oz) incl. batteries excl. other accessories

FM/AM STEREO CASSETTE PLAYER

SONY®

MICROFILM

SERVICING NOTES

Replacing chip components

All chip components should be connected and disconnected, using a tapered soldering iron [temperature of the iron tip: less than 280°C (536°F)], a pair of tweezers and braided wire.

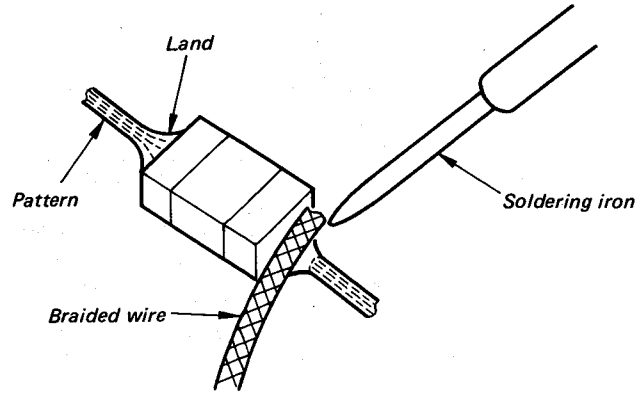
Precautions for replacement

1. **Do not disconnect the chip component forcefully. Otherwise, the pattern may peel off.**
2. **Never re-use a disconnected chip component. Dispose of all old chip components.**
3. **To protect the chip component, heating time for attaching the component should be within 3 seconds.**

○ Removing chip components

(1) Removing solder at electrode

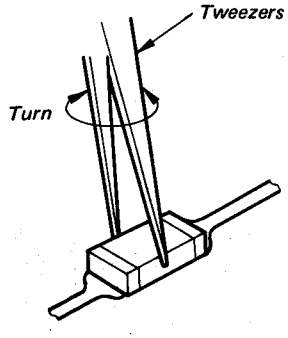
Remove the solder at the electrode, using a thin braided wire. Do not remove the solder of the part (chip component) attached adjacent to the electrode.



(2) Disconnecting chip components

Turn the tweezers with the soldering iron alternately applied to both electrodes, and the chip component will be disconnected. Take careful precautions while disconnecting, because if the chip component is forcefully removed the land may peel off.

Never re-use a disconnected chip component.



(3) Smoothing the soldered surface

After disconnecting the chip component, remove the solder by using a braided wire to smooth the land surface.

○ Connecting chip components

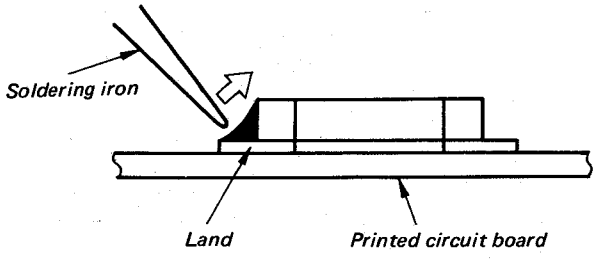
The value of chip components is not displayed on the main body. Take due precautions to avoid mixing new chip components with other ones.

(1) Applying solder to land on one side

Apply a thin layer of solder to the land on one side where the chip component is to be connected. Too much solder may cause bridging.

(2) Speedy soldering

Hold the chip component at the desired position, using tweezers, and apply the soldering iron in the arrow-marked direction. To protect the chip component, heating time should be within 3 seconds.



(3) Speedy soldering of electrode on the other side

Solder the electrode on the other side in the same way as in (2) above.

NOTE ON REPAIR

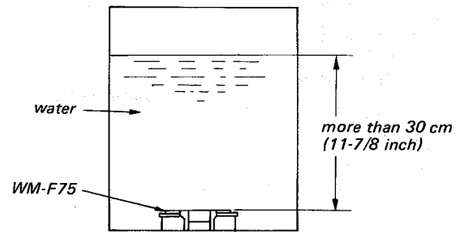
This model is waterproof so be sure to confirm waterproofing after repair.

WATERPROOF CHECK

(1) Perform with the ornamental sheet, knob ornamental plate and ornamental plate (A), (C) removed. (See page 5.)
(If there is leakage when checking with them on, they must be replaced with new ones.)

(2) Insert batteries or a cassette tape in the set.
(So that it will sink.)

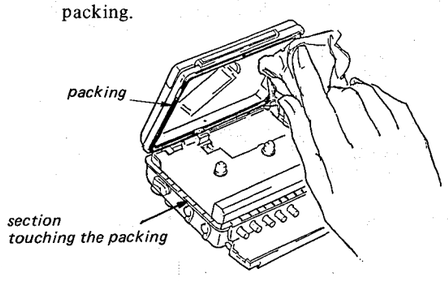
(3) Place in more than 30 cm of water for 30 minutes.
(Close DC jack and packing firmly.)



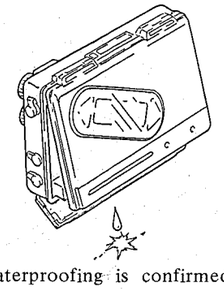
(4) Remove from the water after 30 minutes and wipe off all moisture.

(5) Check all operations. (If water has entered, abnormal operation will occur.)

(6) Open the cassette case and wipe off all moisture on the packing and case sections touching the packing.



(7) Shake the set and confirm that no water comes out.

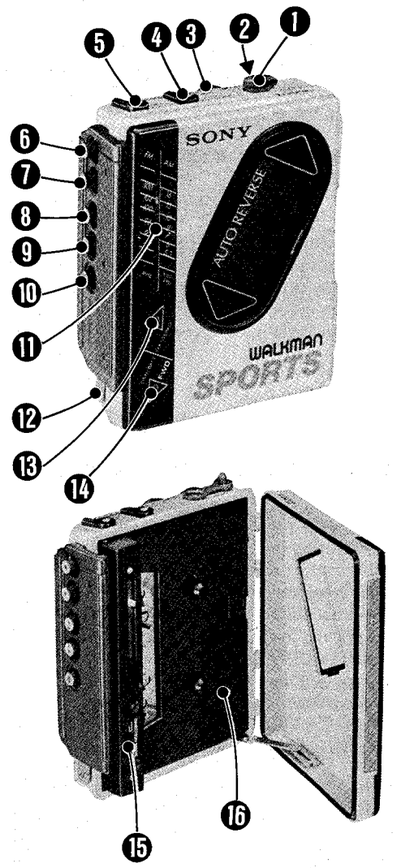


(8) When waterproofing is confirmed, mount the ornamental sheet and ornamental plate assy (A). (Wipe off the water on the screw to prevent rusting.)

IF LEAKAGE OCCURS DURING WATERPROOF CHECK:

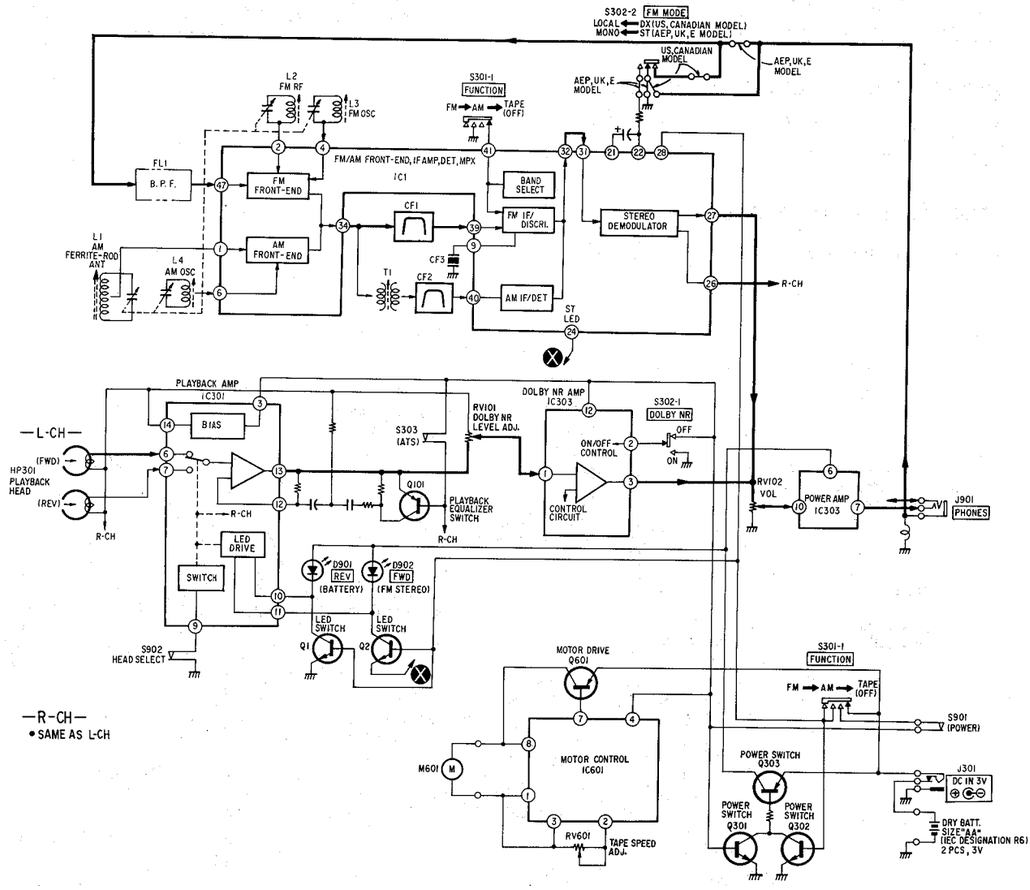
Dry the mechanism section and amp board, jack, etc. with a hairdryer, perform waterproofing procedures again and recheck starting with step (1).

PARTS IDENTIFICATION



❶ PHONES (headphones) jack
❷ TUNING knob
❸ VOL (volume) control
❹ DOLBY NR (noise reduction)/FM SENS (sensitivity) selector
❺ FUNCTION selector
❻ ■ (stop) button
❼ ▼ (playback) button
❽ ▲▲ (fast reverse) button
❾ ▼▼ (fast forward) button
❿ ▲▼ DIRECTION (tape transport direction) button
⓫ Dial scale
⓬ DC IN 3 V (external power input) jack
⓭ REV ⫸ (reverse)/FM STEREO indicator
⓮ ⫷ FWD (forward)/BATTERY indicator
⓯ DIRECTION MODE switch
⓰ Battery compartment

SECTION 1
BLOCK DIAGRAM



SECTION 2
REMOVAL AND ASSEMBLY OF WATERPROOFED SECTION

ORNAMENTAL PLATE ASSEMBLY FOR REPLACEMENT PART

When knob ornament or ornamental plate is removed, be sure to order the following assembled parts for replacement.

Part No.	Color	Description
X-3326-510-1	Yellow	ornamental plate ass'y
X-3326-510-2	Red	
X-3326-510-3	Gray	

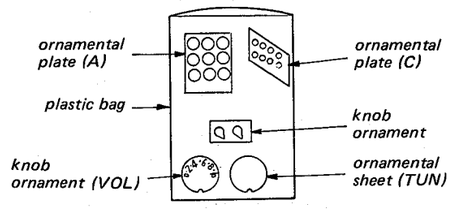
WATERPROOFING REPAIR METERIALS

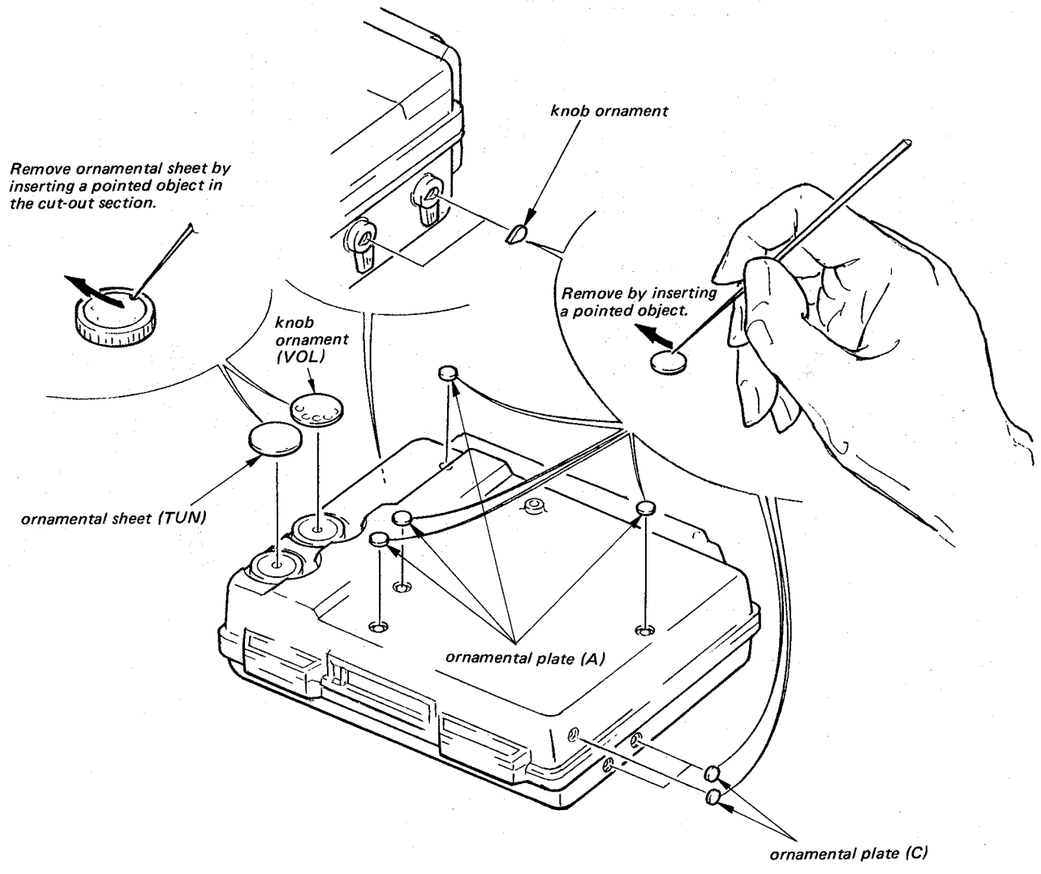
- Sony grease: SGL-501 7-662-001-62
- Sony bond: SC-108

REMOVED ORNAMENTAL SHEET

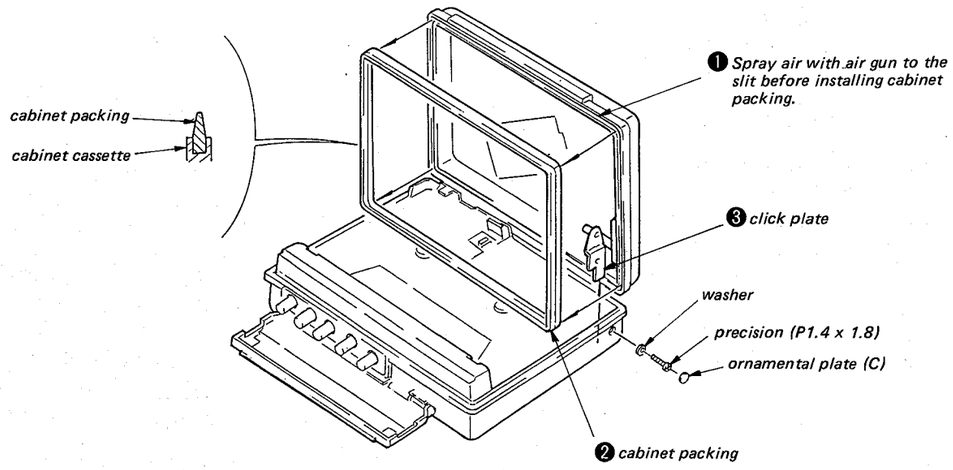
- Replace with a new part when reassembling.

- **Assembled parts**

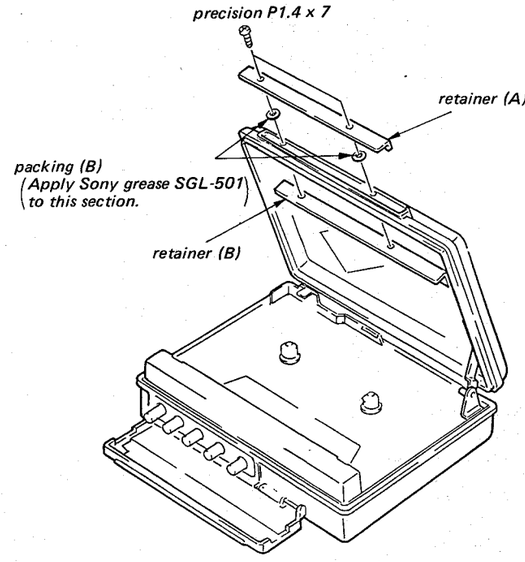



Remove ornamental sheet by inserting a pointed object in the cut-out section.
knob ornament
Remove by inserting a pointed object.
knob ornament (VOL)
ornamental sheet (TUN)
ornamental plate (A)
ornamental plate (C)

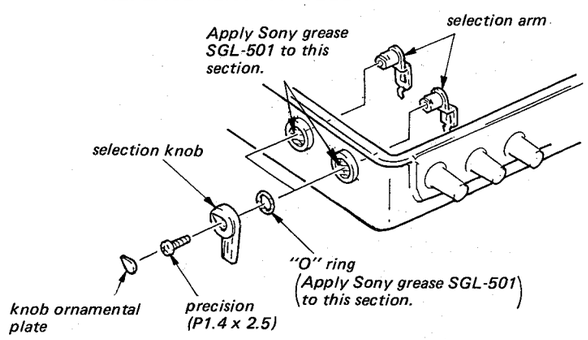
REPLACEMENT OF CABINET PACKING



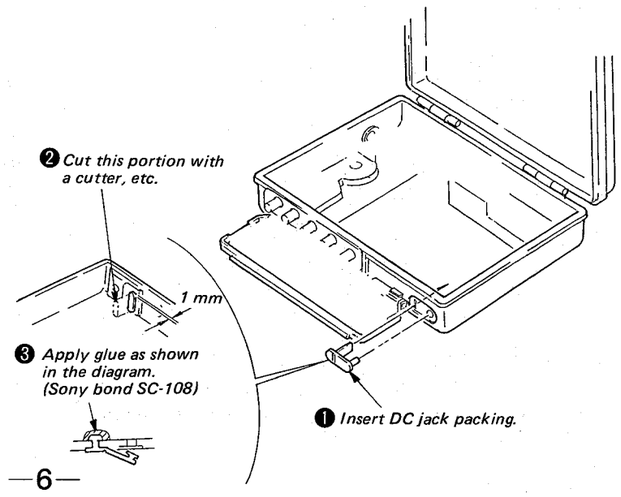
REPLACEMENT OF PACKING (B)



REPLACEMENT OF SELECTION KNOB


Apply Sony grease SGL-501 to this section.
selection arm
selection knob
knob ornamental plate
precision (P1.4 x 2.5)
"O" ring (Apply Sony grease SGL-501 to this section.

REPLACEMENT OF DC JACK PACKING



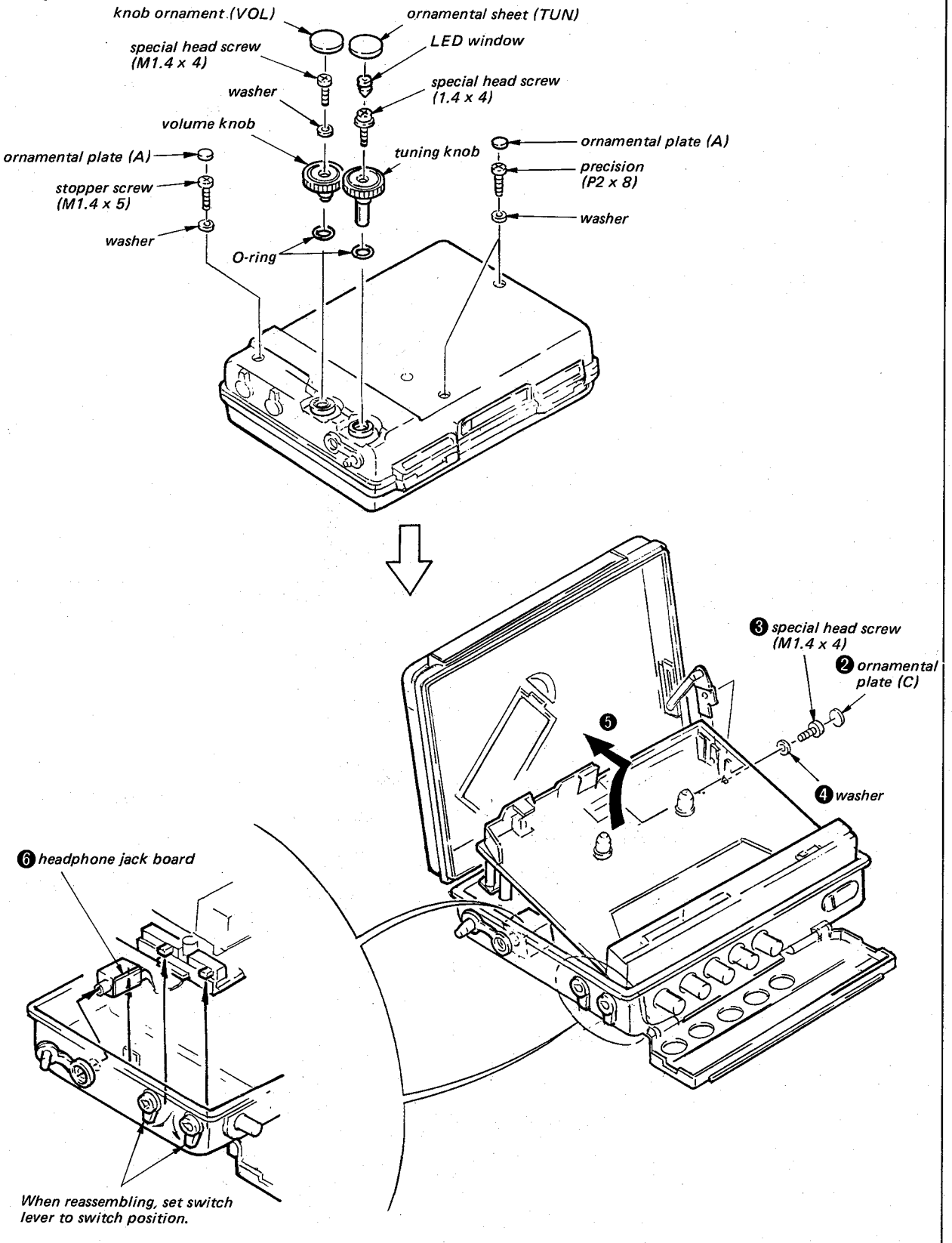
SECTION 3
DISASSEMBLY

3-1. REMOVAL

Note: Follow the disassembly procedure in the numerical order given.

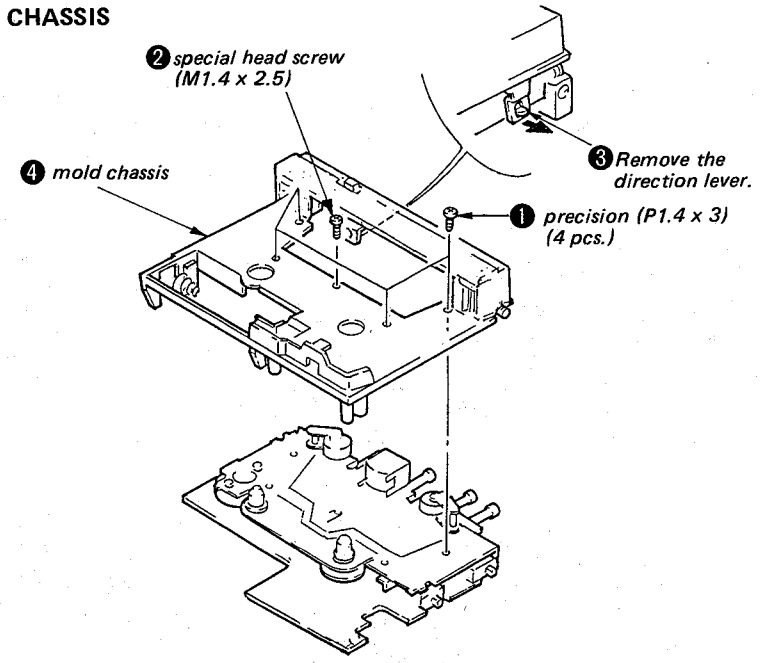
CABINET

❶

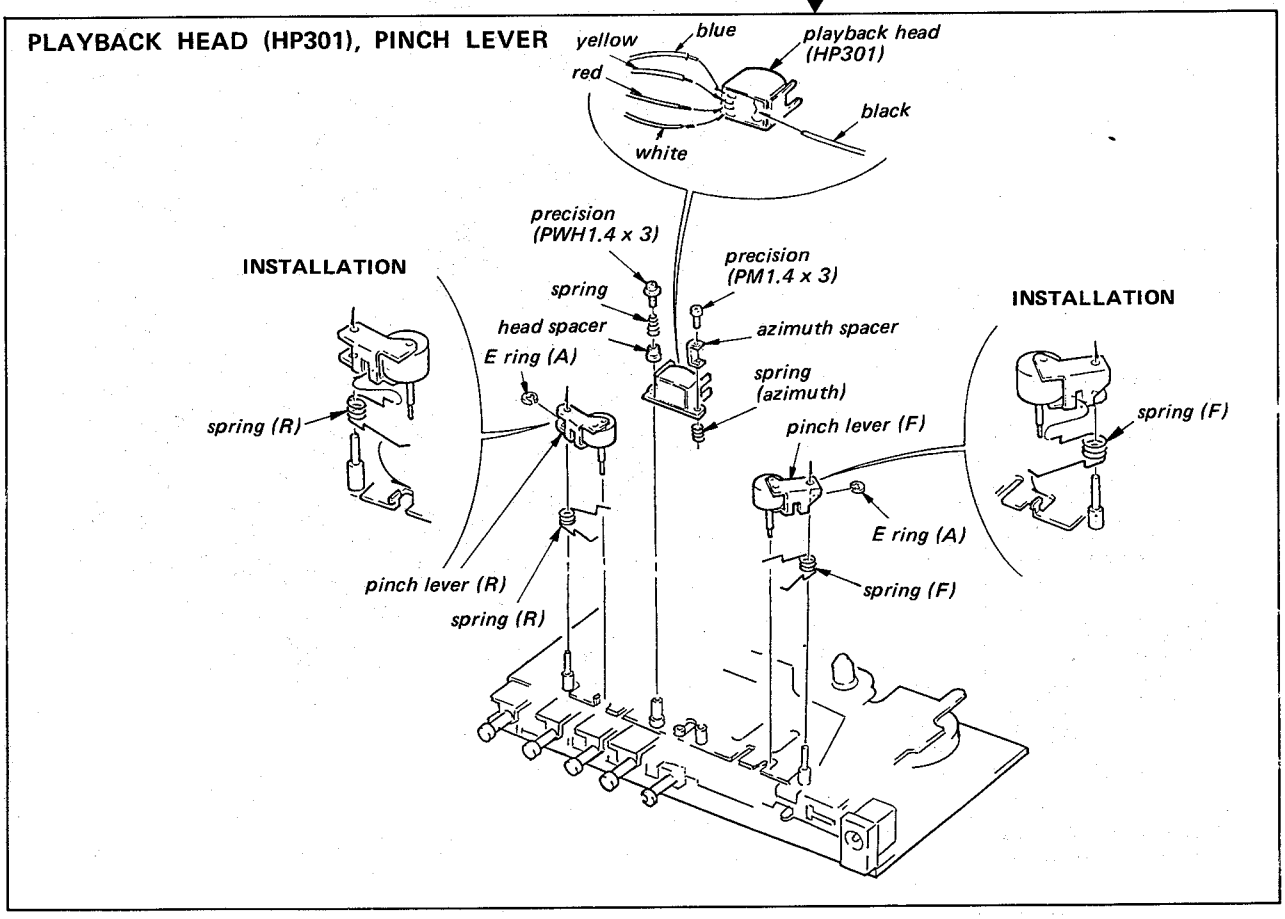


CABINET
(See page 7.)

MOLD CHASSIS

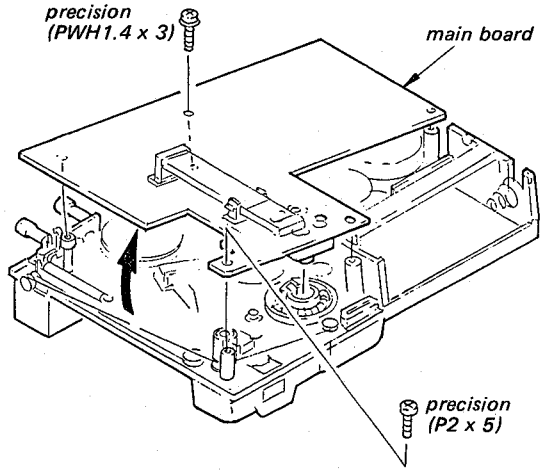


PLAYBACK HEAD (HP301), PINCH LEVER

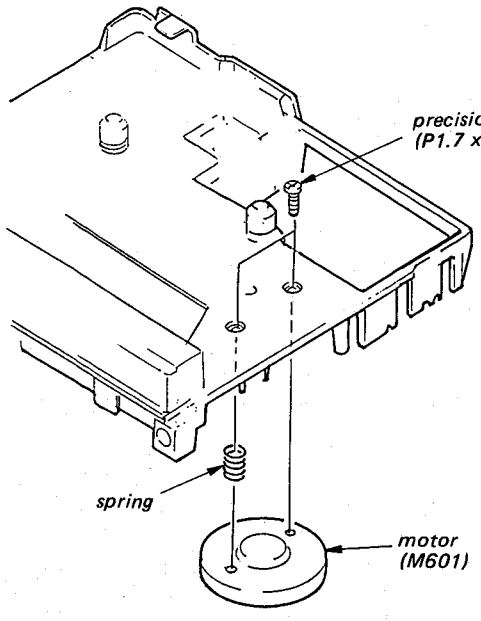


CABINET
(See page 7.)

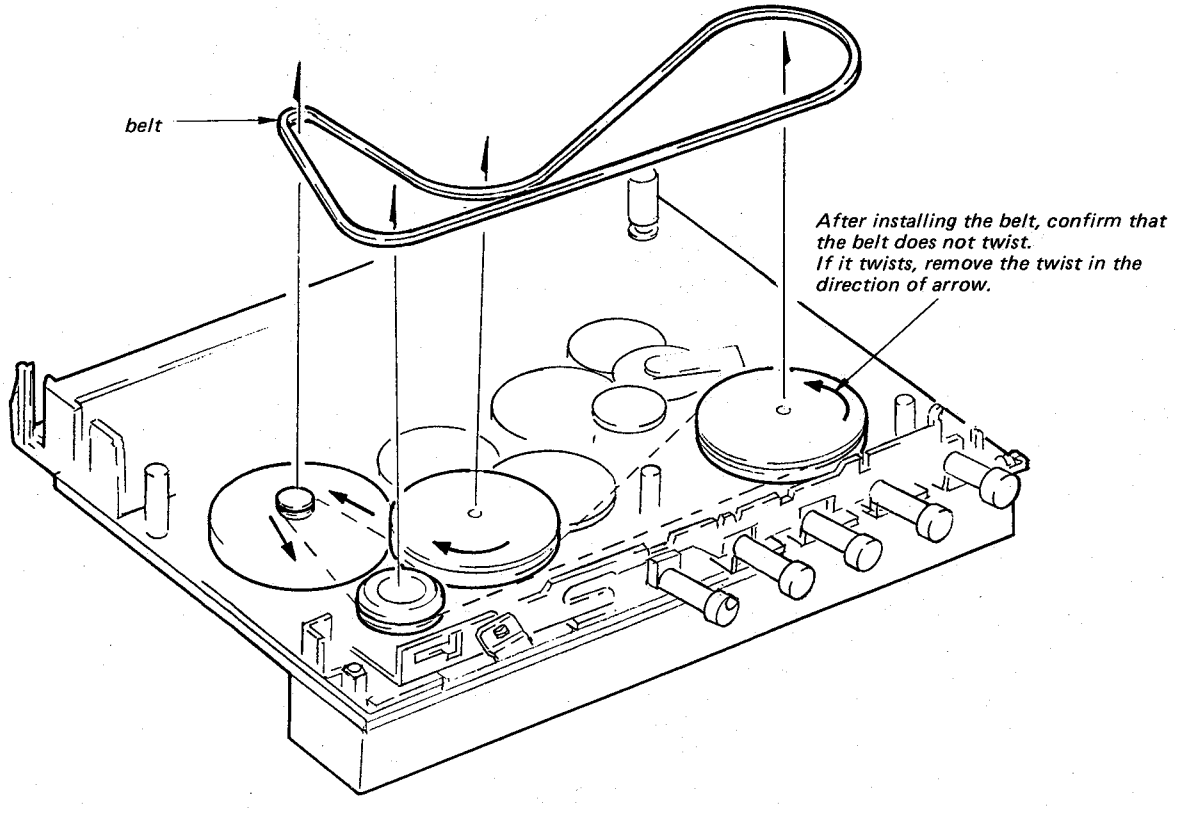
MAIN BOARD



MOTOR (M601)

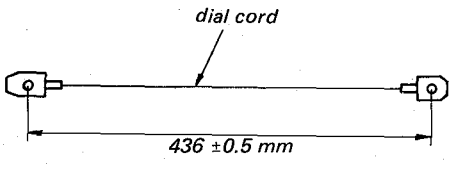


BELT

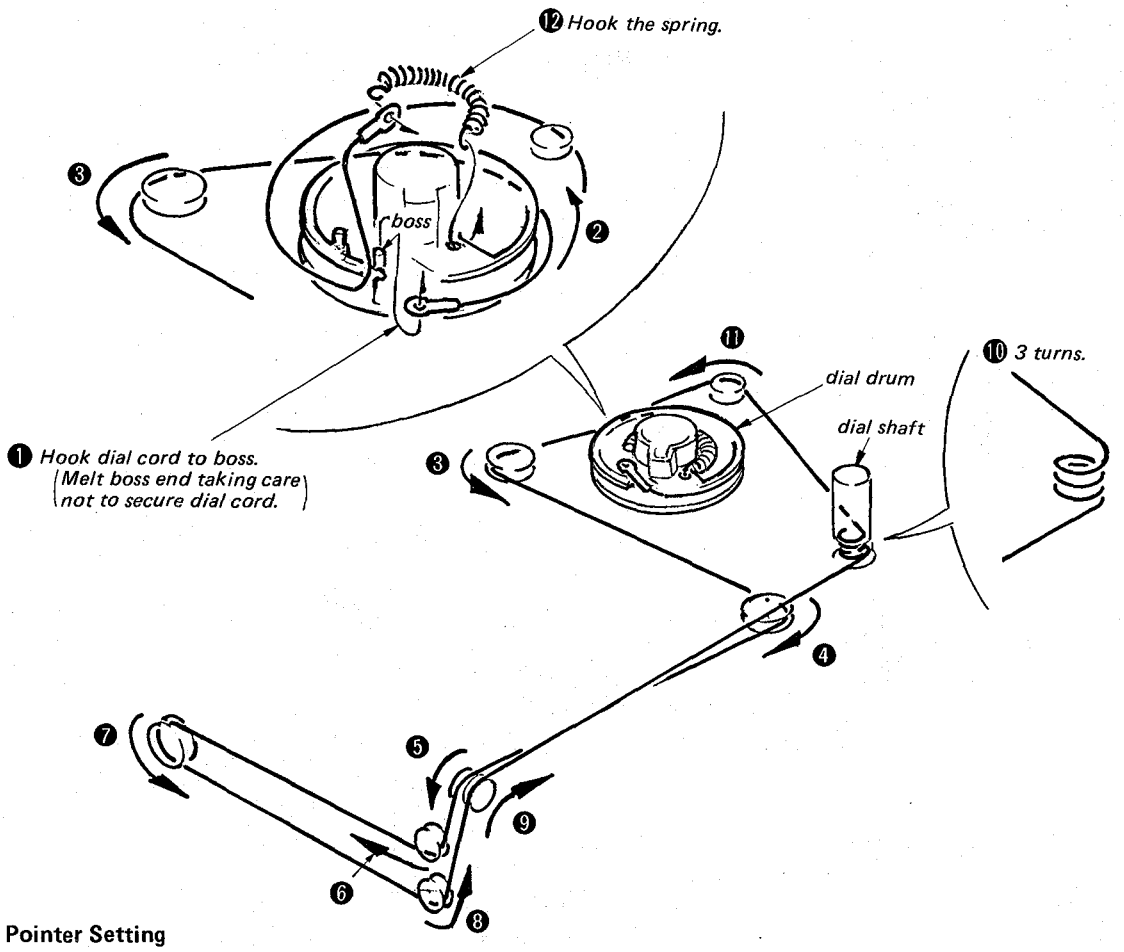

belt
After installing the belt, confirm that
the belt does not twist.
If it twists, remove the twist in the
direction of arrow.

3-2 DIAL CORD STRINGING

1) Dial Cord Preparation

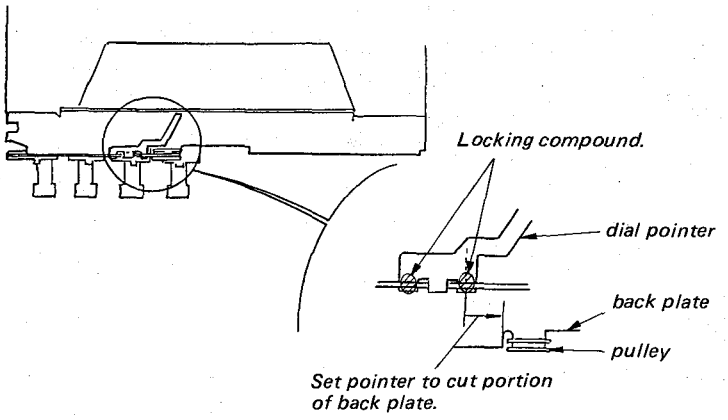


2) Dial Cord Stringing



3) Pointer Setting

Turn the tuning shaft fully clockwise.



SECTION 4
ADJUSTMENTS

PRECAUTION

1. Clean the following parts with a denatured-alcohol-moistened swab:

playback head	pinch roller
erase head	rubber belts
capstan	idlers

2. Demagnetize the record/playback head with a head demagnetizer.
3. Do not use a magnetized screwdriver for the adjustments.
4. After the adjustments, apply suitable locking compound to the parts adjusted.
5. The adjustments should be performed with the rated power supply voltage unless otherwise noted.

4-1. TORQUE MEASUREMENT

Mode	Torque meter	Meter reading
FWD	CQ-102C	20 – 35 g·cm (0.28 – 0.49 oz·inch)
FWD Back Tension		2 – 4.5 g·cm (0.03 – 0.06 oz·inch)
REV	CQ-102RB	20 – 35 g·cm (0.28 – 0.49 oz·inch)
REV Back Tension		2 – 4.5 g·cm (0.03 – 0.06 oz·inch)
FF, REW	CQ-201B	more than 60 g·cm (0.83 oz·inch)

4-2. TAPE TENSION MEASUREMENT

Mode	Tension meter	Meter reading
FWD	CQ-403A	more than 60 g (2.1 oz)
REV	CQ-403R	more than 60 g (2.1 oz)

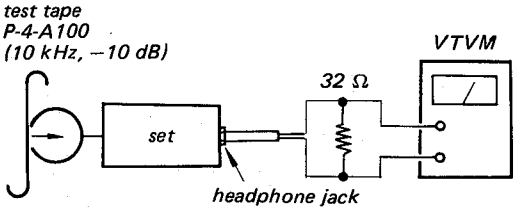
4-3. ELECTRICAL ADJUSTMENTS

PB Head Azimuth Adjustment

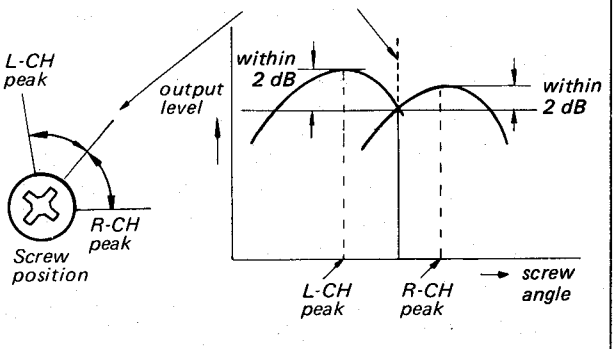
Adjust for both in FWD direction and REV direction.

Procedure:

1. Mode: playback (FWD and REV)

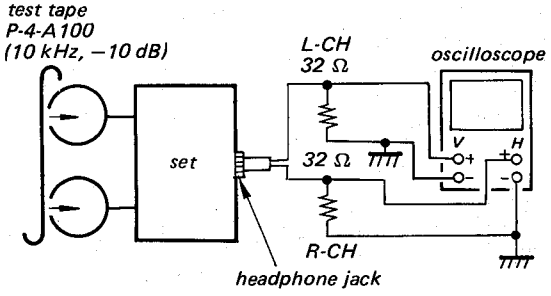


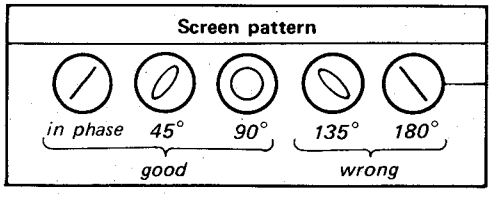
2. Turn the adjustment screw for the maximum output levels. If these levels do not match, turn the adjustment screw until both of output levels match together within 2 dB.



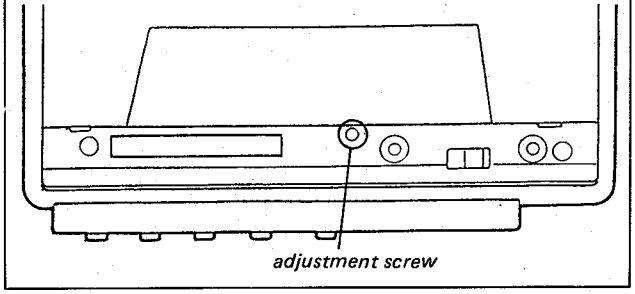
3. Phase Check

Mode: playback (FWD and REV)





Adjustment Location:



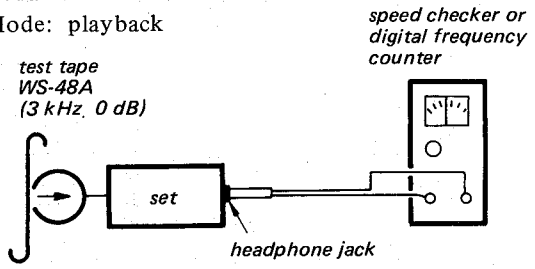
Tape Speed Adjustment

Setting:

VOL control: mechanical mid

Procedure:

Mode: playback



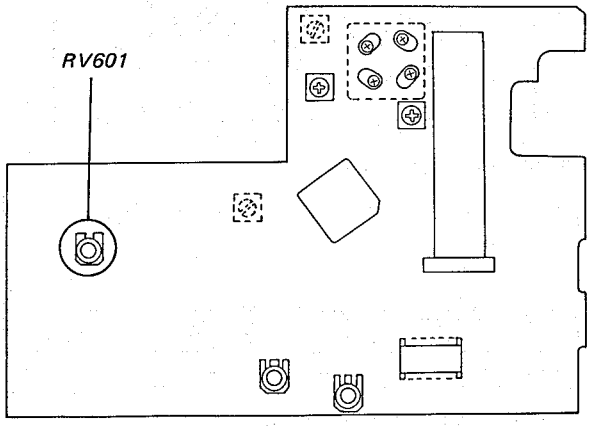
1. Play back the end of the tape in FWD mode and adjust RV601 for the specification.
2. Reverse the tape and confirm that the frequency difference between the beginning of the tape in FWD mode and the end of the tape in REV mode is within ±1.5% (±45 Hz).
3. Reverse the tape again, confirm that the frequency difference between the end of the tape in FWD mode and the beginning of the tape in REV mode is within ±1.5% (±45 Hz). If it is not, replace flywheel R.

marking on flywheel R	no slit	one slit	two slits
the tape speed of the beginning of the tape in REV mode against that of the end of the tape in FWD mode	no slit	one slit	two slits
	slow ←		→ fast

Specification:

Speed checker	Digital frequency counter
±3%	2,910 – 3,090 Hz

Adjustment Location: main board



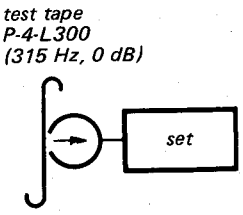
Dolby NR Level Adjustment

Setting:

DOLBY NR switch: OFF
VOL control: minimum

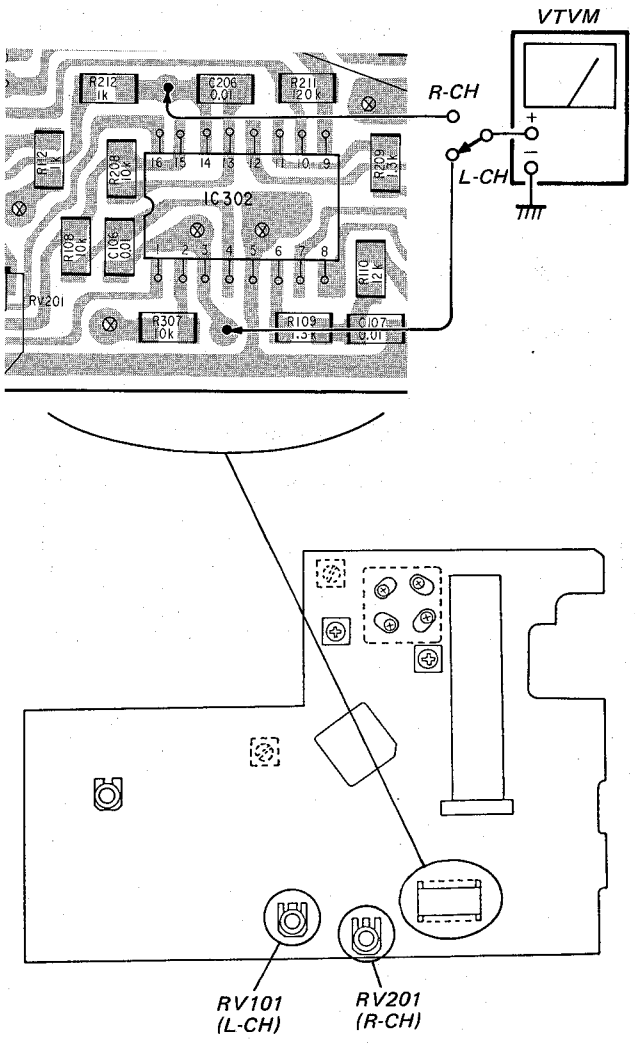
Procedure:

1. Mode: playback



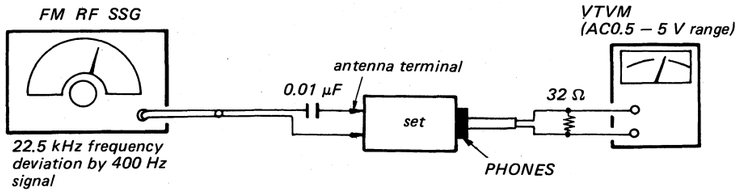
Adjust RV101 (L-CH) and RV201 (R-CH) for 28.5 to 35.8 mV (−28.7 to −26.7 dB) reading on VTVM.

Adjustment Location: main board



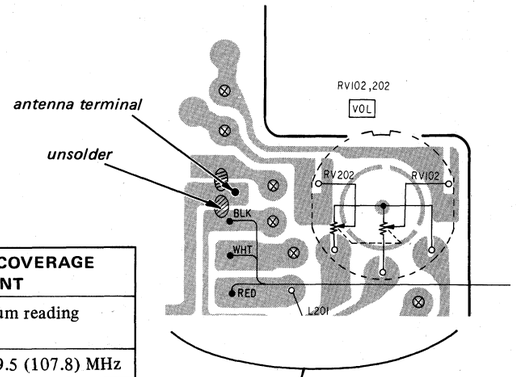
RADIO SECTION

• FM SECTION



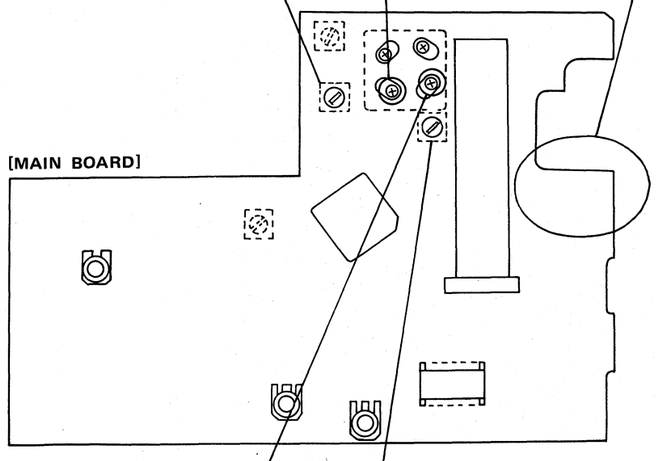
- Repeat the procedures in each adjustment several times, and the frequency coverage and tracking adjustments should be finally done by the trimmer capacitors.

- Solder.



FM FREQUENCY COVERAGE ADJUSTMENT	
Adjust for a maximum reading on VTVM.	
86.5 (87.35) MHz	109.5 (107.8) MHz
L3	CT3

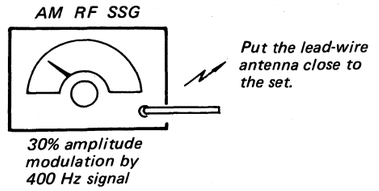
( ): in West Germany

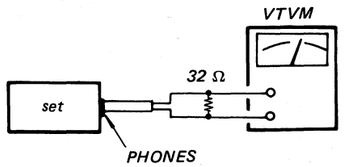


CT2	L2
109.5 (107.8) MHz	86.5 (87.35) MHz
Adjust for a maximum reading on VTVM.	
FM TRACKING ADJUSTMENT	

( ): in West Germany

• AM SECTION



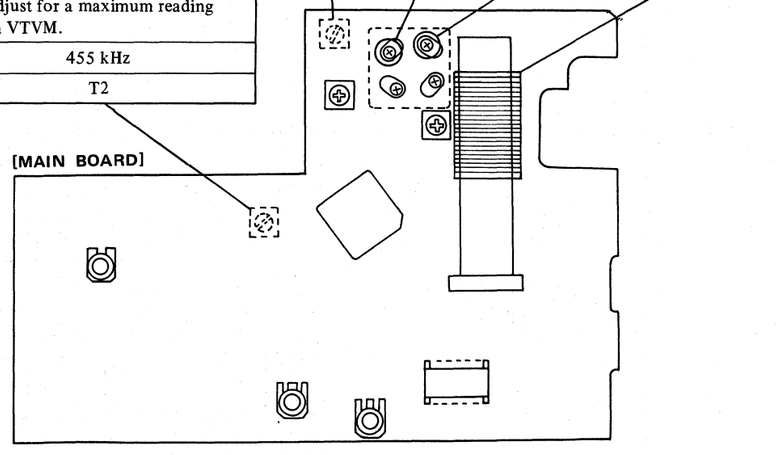


- Repeat the procedures in each adjustment several times, and the frequency coverage and tracking adjustments should be finally done by the trimmer capacitors.

AM FREQUENCY COVERAGE ADJUSTMENT	
Adjust for a maximum reading on VTVM.	
515 kHz	1,680 kHz
L4	CT4

AM TRACKING ADJUSTMENT	
Adjust for a maximum reading on VTVM.	
1,400 kHz	620 kHz
CT1	L1

AM IF ADJUSTMENT
Adjust for a maximum reading on VTVM.
455 kHz
T2



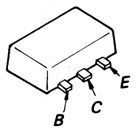
SECTION 5
DIAGRAMS

5-1. MOUNTING DIAGRAM
– Conductor Side –

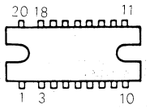
- **Semiconductor Lead Layouts**

2SA1162
DTA114TK
DTC114YK

2SB956-S

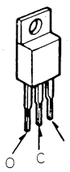


AN6612S

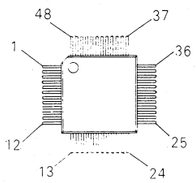


(Top view)

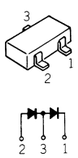
BA3404F
BA5206BF
CX20085



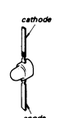
CX20029

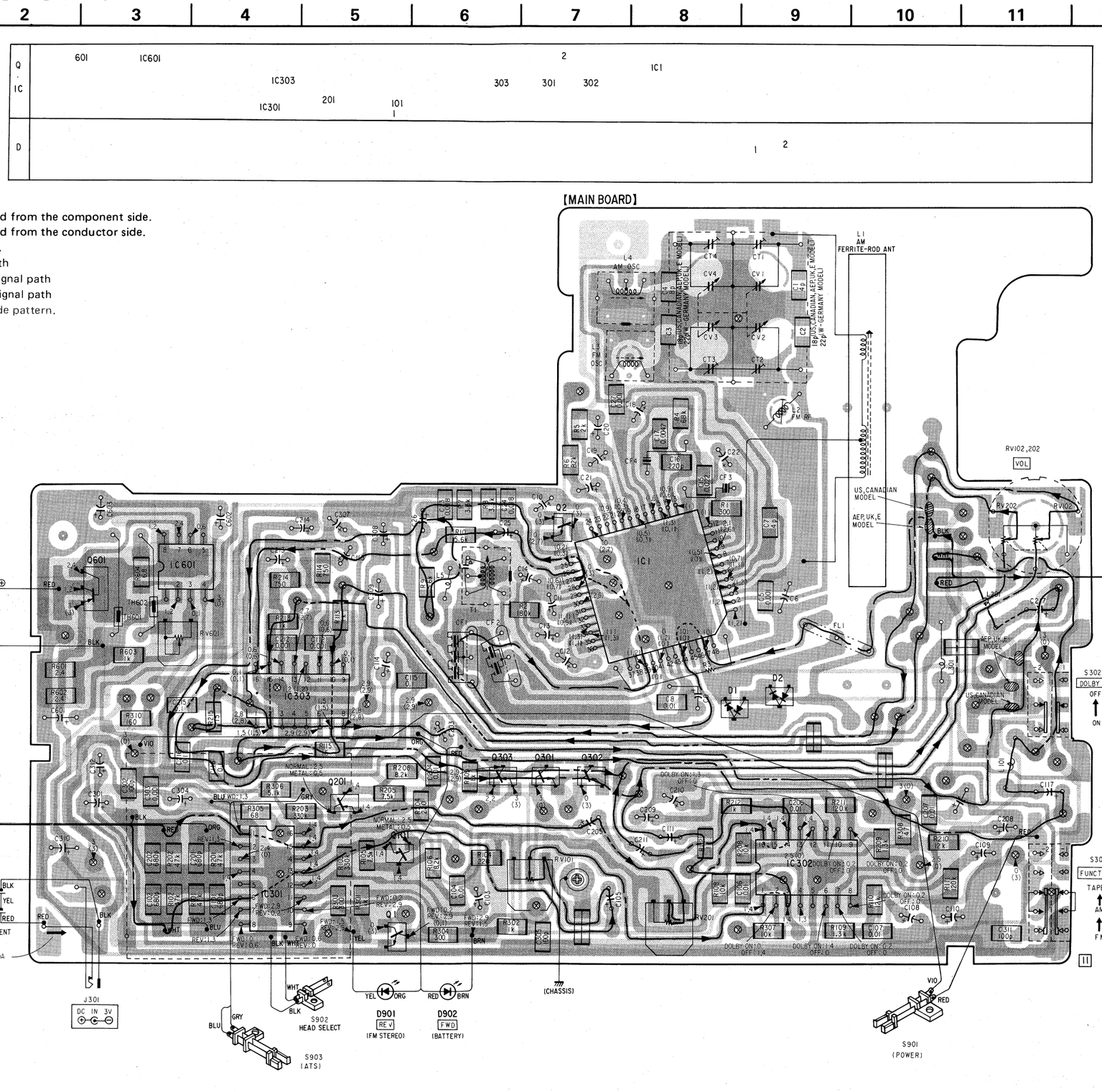


DA204K

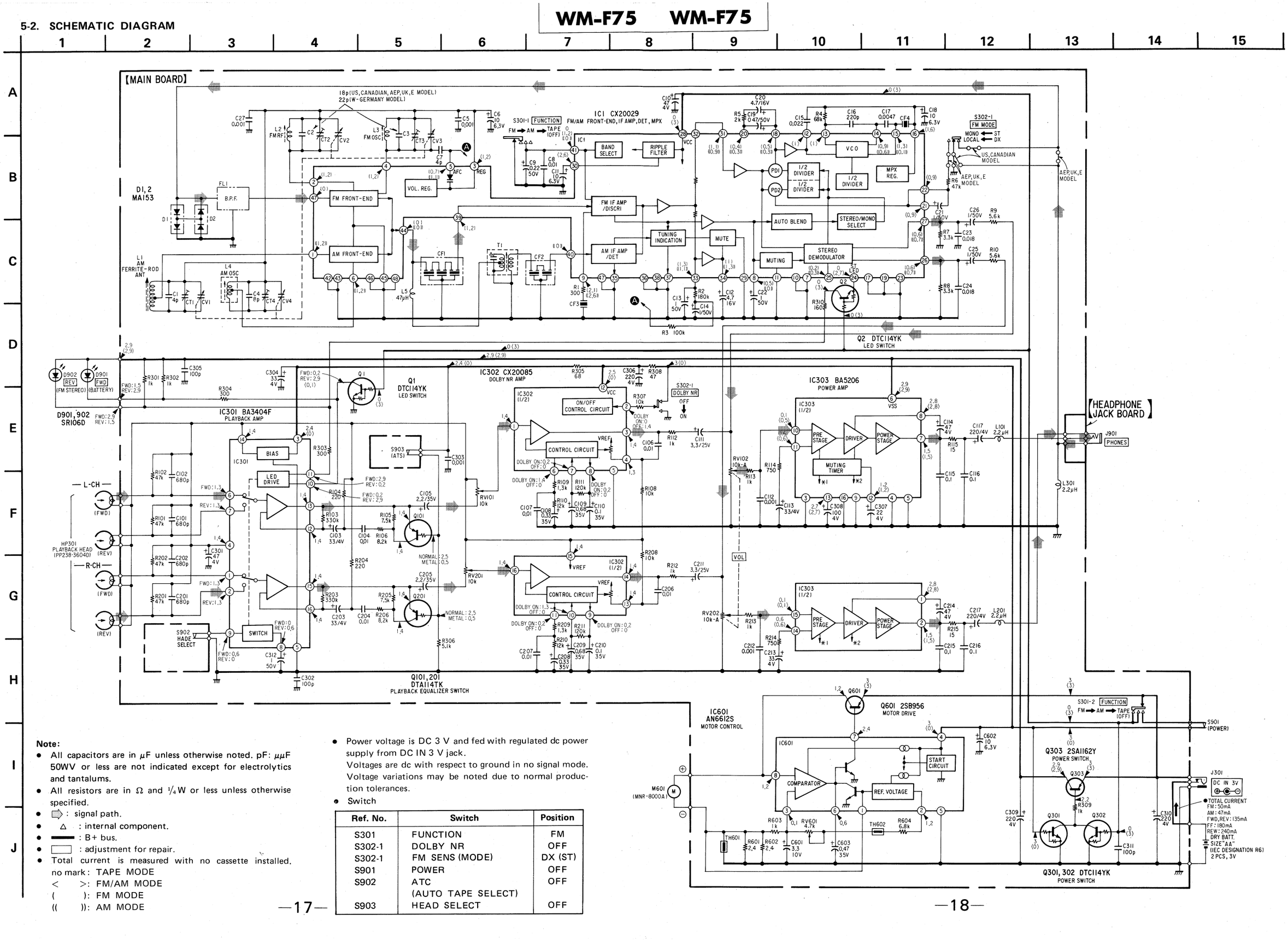


SR106D





5-2. SCHEMATIC DIAGRAM



Note:

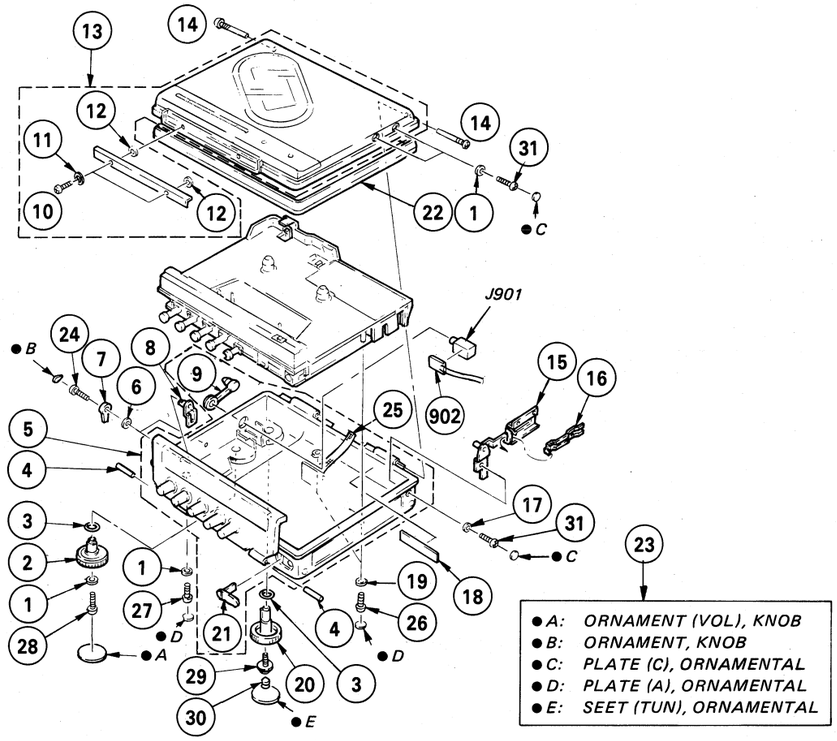
- All capacitors are in μF unless otherwise noted. pF: μμF 50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4 W or less unless otherwise specified.
- ▨ : signal path.
- △ : internal component.
- ▬ : B+ bus.
- ▭ : adjustment for repair.
- Total current is measured with no cassette installed.
  no mark : TAPE MODE
  < > : FM/AM MODE
  ( ) : FM MODE
  (( )) : AM MODE
- Power voltage is DC 3 V and fed with regulated dc power supply from DC IN 3 V jack.
  Voltages are dc with respect to ground in no signal mode.
  Voltage variations may be noted due to normal production tolerances.
- Switch

Ref. No.	Switch	Position
S301	FUNCTION	FM
S302-1	DOLBY NR	OFF
S302-1	FM SENS (MODE)	DX (ST)
S901	POWER	OFF
S902	ATC (AUTO TAPE SELECT)	OFF
S903	HEAD SELECT	OFF

SECTION 6
EXPLODED VIEWS AND PARTS LIST

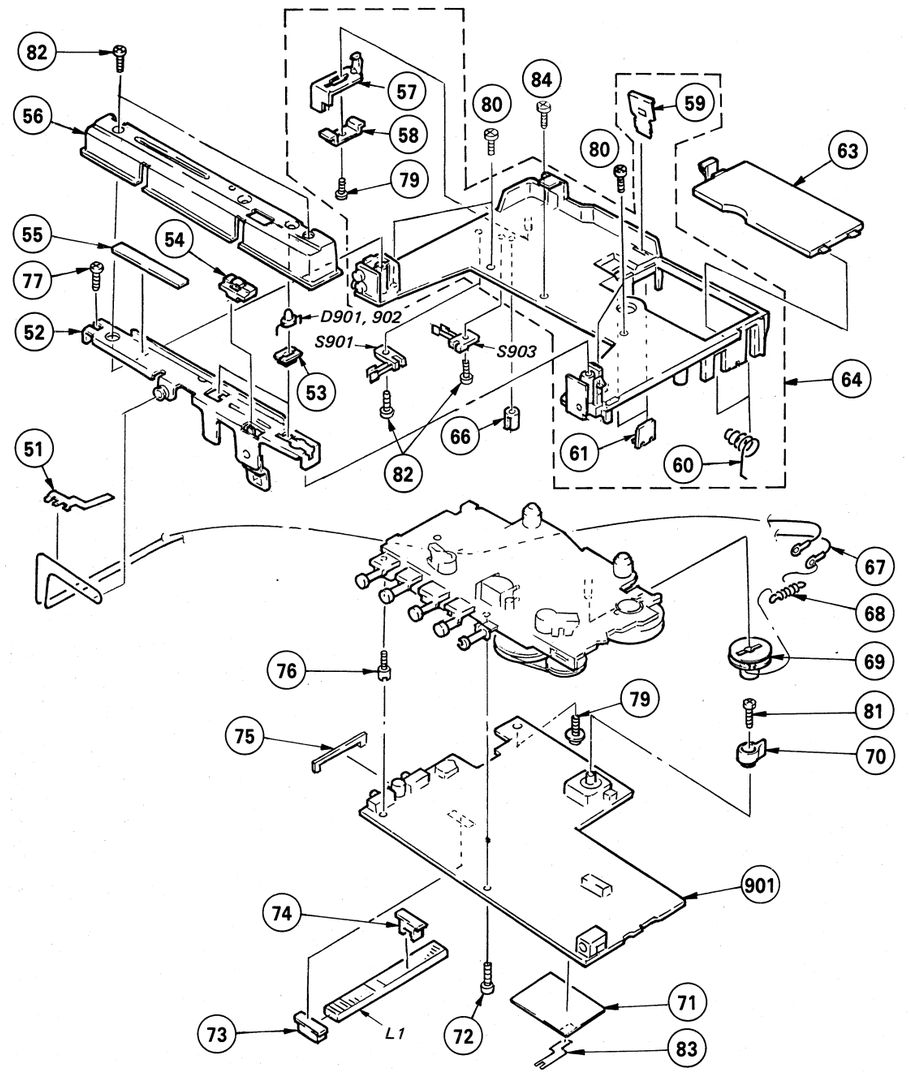
NOTE:
- The mechanical parts with no reference number in the exploded views are not supplied.
- Items marked " * " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- The construction parts of an assembled part are indicated with a collation number in the remark column.

(1)



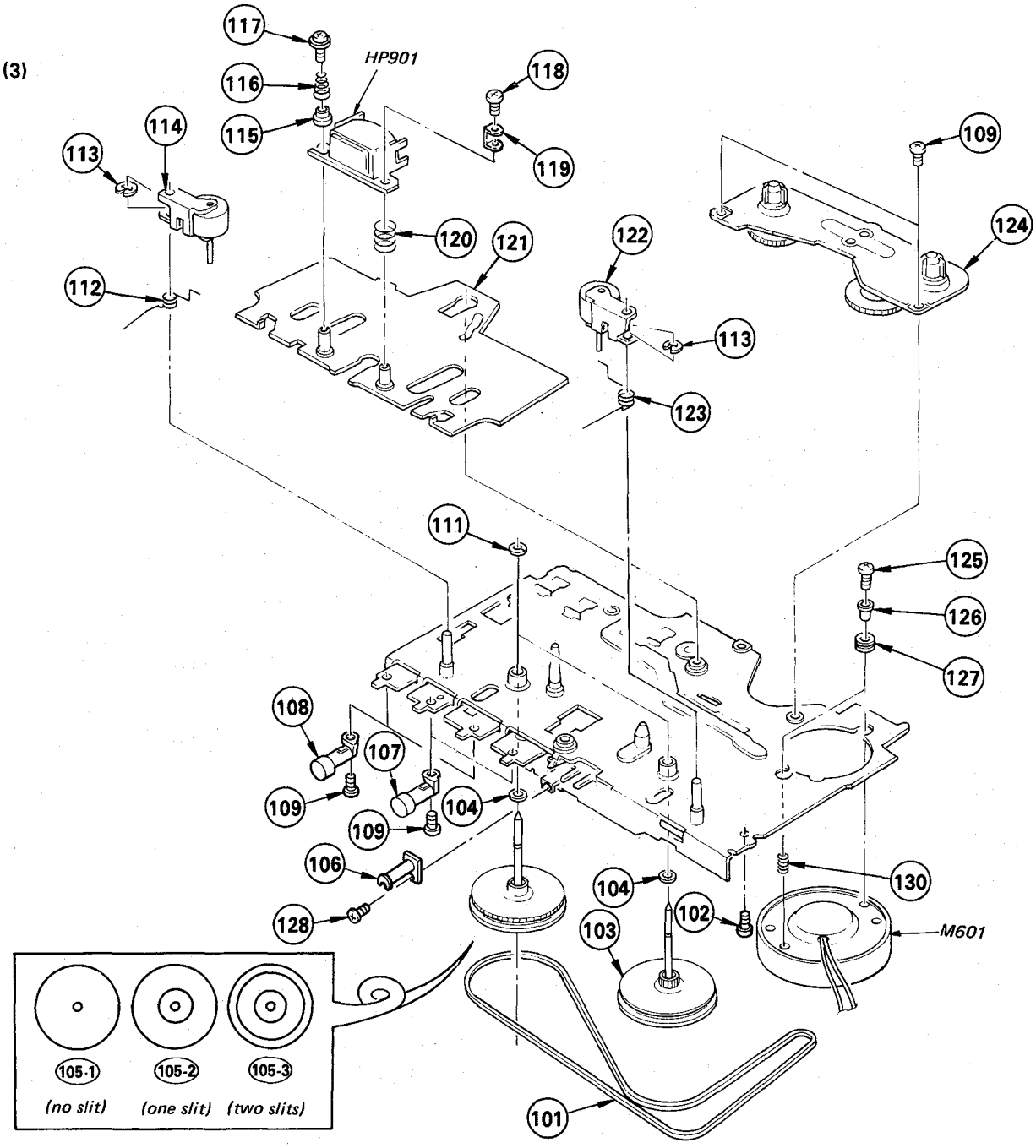
No.	Part No.	Description	Remarks
1	3-326-135-01	WASHER	
2	3-326-508-01	KNOB, VOLUME	
3	3-326-553-01	RING, O	
4	3-649-266-00	PIN, PARALLEL	
5	X-3326-515-1	(US, Canadian:YELLOW)...CONTROL CABINET ASSY	
	X-3326-516-1	(AEP:YELLOW).....CONTROL CABINET ASSY	
	X-3326-517-1	(UK, E:YELLOW).....CONTROL CABINET ASSY	
	X-3326-515-2	(US, Canadian:RED).....CONTROL CABINET ASSY	
	X-3326-515-3	(US, Canadian:GRAY).....CONTROL CABINET ASSY	
	X-3326-516-2	(AEP:GRAY).....CONTROL CABINET ASSY	
	X-3326-517-2	(UK, E:GRAY).....CONTROL CABINET ASSY	
6	3-326-560-01	RING, O	
7	3-326-507-01	KNOB, SELECTION	
8	X-3326-505-1	ARM ASSY, SELECTION	
9	3-326-520-01	PACKING, HP JACK	
10	3-326-145-11	SCREW (M1.7X6)	
11	3-701-436-11	WASHER, PLASTIL (t=0.25)	
12	3-326-149-01	PACKING (B)	
13	X-3326-513-1	(US, Canadian, AEP, UK, E:YELLOW).....FRONT CABINET ASSY	
	X-3326-514-1	(W-GERMANY:YELLOW).....FRONT CABINET ASSY	
	X-3326-513-2	(US, Canadian:RED).....FRONT CABINET ASSY	
	X-3326-513-3	(US, Canadian, AEP, UK, E:GRAY).....FRONT CABINET ASSY	
	X-3326-514-3	(W-GERMANY:GRAY).....FRONT CABINET ASSY	
14	3-326-536-11	SCREW, TAPPING	
15	X-3326-506-1	PLATE ASSY, CLICK	
16	3-326-549-01	SPRING	
17	3-321-885-01	WASHER, STOPPER	
18	*3-701-999-00	LABEL, SERIAL NUMBER	
19	3-326-136-01	WASHER	
20	3-326-509-01	KNOB, TUNING	
21	3-312-826-00	PACKING, DC JACK	
22	3-326-137-01	PACKING, CABINET	
23	X-3326-510-1	(YELLOW)...SHEET ASSY, ORNAMENTAL	
	X-3326-510-2	(RED).....SHEET ASSY, ORNAMENTAL	
	X-3326-510-3	(GRAY).....SHEET ASSY, ORNAMENTAL	
24	7-627-551-28	SCREW, PRECISION +P 1.4X2.5	
25	9-911-816-01	RIBBON, BATTERY	
26	7-685-105-14	TAPPING +P 2X8 NON-SLIT	
27	3-305-528-21	SCREW, STOPPER M1.4X5	
28	3-703-816-11	SCREW (M1.4X4.0), SPECIAL HEAD	
29	3-703-502-51	SCREW	
30	3-326-519-01	WINDOW, LED	
31	3-703-816-01	SCREW (M1.4X2.0), SPECIAL HEAD	
902	*1-616-126-11	PC BOARD, HEADPHONE JACK	
J901	1-507-851-00	JACK (PHONES)	

(2)



No.	Part No.	Description	Remarks
51	3-326-524-01	POINTER	
52	X-3326-508-1	PLATE ASSY, BACK	
53	3-326-516-01	HOLDER, LED	
54	3-326-510-01	KNOB, MODE, REVERSE	
55	3-326-559-01	SHEET, DIAL BACK	
56	3-326-545-01	COVER, HEAD	
57	*3-326-527-01	LEVER, ATS	
58	*3-326-528-01	RETAINER, ATS LEVER	
59	3-326-112-01	SPRING	
60	3-326-530-01	SPRING	
61	3-326-529-01	TERMINAL BOARD, PLUS	
63	3-326-544-01	LID, BATTERY CASE	
64	X-3326-509-1	CHASSIS ASSY, MOLD	
66	3-326-552-01	SHAFT, DIAL	
67	9-911-825-52	STRING, DIAL	
68	3-326-567-01	SPRING, TENSION	
69	*3-326-511-01	DRUM, DIAL	
70	3-326-512-01	ADAPTOR, DRUM	
71	*3-326-551-01	PLATE (A), SHIELD	
72	3-703-502-31	SCREW, PWH 1.4X3	
73	3-326-515-01	HOLDER, FERRITE-ROD ANTENNA	
74	3-326-515-11	HOLDER, ANTENNA	
75	*3-326-565-01	PLATE (B), SHIELD	
76	3-326-535-01	SHAFT (A), FITTING, PC BOARD	
77	7-627-553-67	SCREW, PRECISION P2X5	
79	7-685-103-14	SCREW +P 2X5 TYPE2 NON-SLIT	
80	7-627-850-28	SCREW, PRECISION P1.4X3	
81	7-627-552-37	SCREW, PRECISION +P 1.7X3	
82	7-685-104-19	SCREW +P 2X6 TYPE2 NON-SLIT	
83	*3-326-566-01	PLATE (C), SHIELD	
84	3-703-816-42	SCREW (M1.4X2.5), SPECIAL HEAD	
901	A-3215-762-A	(US,Canadian,AEP,UK,E)..PC BOARD ASSY, MAIN	
	A-3215-806-A	(W-GERMANY)...PC BOARD ASSY, MAIN	

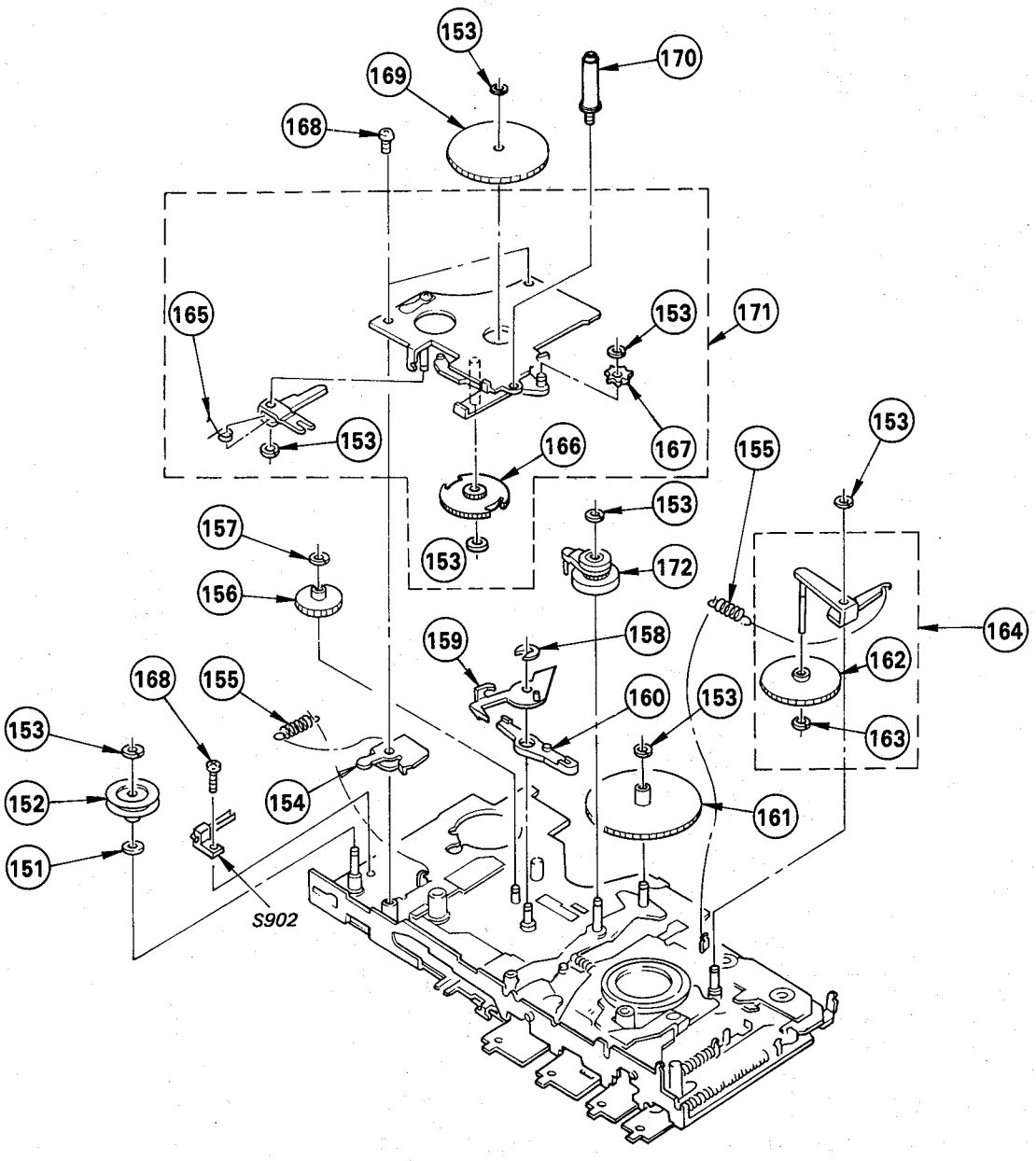
(3)



No.	Part No.	Description	Remarks
101	3-325-387-01	BELT	
103	X-3325-206-1	FLYWHEEL (F) ASSY	
104	3-321-489-01	WASHER	
105-1	X-3325-212-1	FLYWHEEL (R) ASSY	
105-2	X-3325-213-1	FLYWHEEL (R) ASSY	
105-3	X-3325-214-1	FLYWHEEL (R) ASSY	
106	3-326-550-01	BUTTON, D	
107	*3-326-125-01	BUTTON (B), MIDWAY	
108	*3-326-122-01	BUTTON (A), MIDWAY	
109	7-627-451-17	SCREW, PRECISION +K 1.4X2.5	
111	3-321-483-11	RING, RETAINING	
112	3-325-332-01	SPRING (R)	
	3-325-332-11	SPRING (R)	
113	3-590-768-00	RING (A), E	
114	X-3324-920-1	PINCH LEVER (R) ASSY	
115	3-325-358-01	COLLAR, AZIMUTH	
116	3-318-106-01	SPRING (H), COMPRESSION	

No.	Part No.	Description	Remarks
117	3-703-502-12	SCREW	
118	7-627-551-58	SCREW, PRECISION +P 1.4X3	
119	3-325-396-01	SPACER, AZIMUTH	
120	3-325-380-01	SPRING, COMPRESSION (AZIMUTH)	
	3-325-380-11	SPRING, COMPRESSION (AZIMUTH)	
121	X-3324-930-1	CHASSIS ASSY, HEAD	
122	X-3324-919-1	PINCH LEVER (F) ASSY	
123	3-325-331-01	SPRING (F)	
	3-325-331-11	SPRING (F)	
124	X-3326-503-1	TABLE ASSY, REEL	
125	7-627-552-48	SCREW, PRECISION +P 1.7X4	
126	3-325-385-01	SPACER, MOTOR	
127	3-570-770-00	CUSHION (A), MOTOR	
128	3-703-816-01	SCREW (M1.4X2.0), SPECIAL HEAD	
129	*3-324-723-01	CAP, SHIELD	
130	3-325-395-01	SPRING, COMPRESSION	

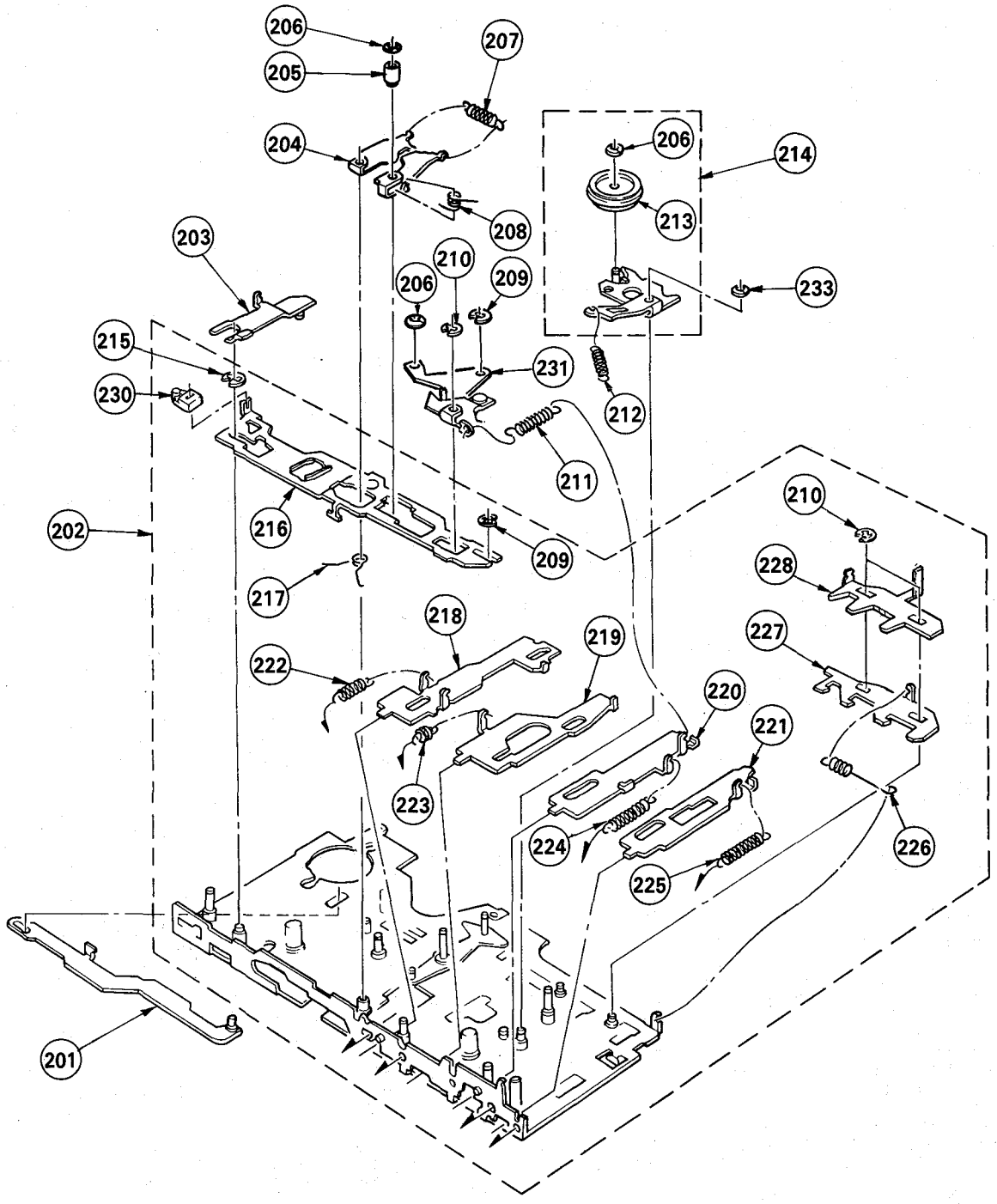
(4)



No.	Part No.	Description	Remarks
151	3-325-306-01	WASHER (DIA. 1.6)	
152	3-325-393-01	PULLEY, MIDWAY	
153	3-570-615-00	POLY-WASHER (DIA.1.2)	
154	3-324-993-01	LEVER, SELECTION, DERECTION	
155	3-325-349-01	SPRING, TENSION	
156	3-325-323-01	GEAR, CAM	
157	3-325-394-01	WASHER, STOPPER	
	3-325-394-11	WASHER, STOPPER	
	3-325-394-21	WASHER, STOPPER	
158	3-325-386-01	RING (A), C	
159	3-325-357-01	LEVER, SHUT-OFF	
160	3-325-326-01	LEVER (B), SHUT-OFF	

No.	Part No.	Description	Remarks
161	3-325-324-01	GEAR, IDLER	
162	3-324-947-01	GEAR, FR	
163	3-315-384-11	WASHER, STOPPER	
164	*X-3324-912-1	LEVER ASSY, FR GEAR	
165	3-324-996-01	SPRING	
166	3-325-363-01	GEAR, D	
167	3-324-967-01	GEAR, MODE CHANGE	
168	3-703-816-01	SCREW (M1.4X2.0), SPECIAL HEAD	
169	3-324-949-01	GEAR, SHUT-OFF	
170	3-326-501-01	SHAFT (B) PCB HOLDER	
171	*X-3326-121-1	CHASSIS COMPLETE ASSY, D	
172	X-3324-921-3	LIMITER ASSY, FWD	

(5)



No.	Part No.	Description	Remarks
201	X-3324-923-1	SLIDER ASSY, SHUT-OFF	
202	*X-3326-504-1	LEVER ASSY, CONTROL	
203	X-3324-922-1	LEVER ASSY, MODE SELECTION	
204	3-325-265-01	LEVER (C), IDLER	
205	3-325-263-01	COLLAR (B), IDLER	
206	3-570-615-00	POLY-WASHER (DIA.1.2)	
207	3-325-318-01	SPRING, TENSION	
208	3-325-266-01	SPRING	
209	3-590-768-00	RING (A), E	
210	3-578-254-00	RING, RETAINING, E1.2	
211	3-325-288-01	SPRING (POWER TENSION), TENSION	
212	3-325-348-01	SPRING, TENSION	
213	X-3325-205-1	IDLER ASSY, FWD	
214	X-3324-931-1	IDLER COMPLETE ASSY, FWD	
215	7-624-104-04	STOP RING 2.0, TYPE -E	
216	X-3324-924-1	SLIDER ASSY, D	

No.	Part No.	Description	Remarks
217	3-325-341-01	SPRING	
218	3-325-365-11	LEVER, FF	
219	3-325-325-11	LEVER, REW	
220	3-325-399-11	LEVER (B), FWD	
221	3-325-397-	LEVER (B), RA	
222	3-325-350-01	SPRING, TENSION (POWER TENSION)	
223	3-325-345-01	SPRING, TENSION	
224	3-326-561-01	SPRING (POWER TENSION), TENSION	
225	3-325-383-01	SPRING, TENSION	
226	3-326-130-01	SPRING, TENSION	
227	3-326-131-01	PLATE (D), LOCK	
228	3-326-132-01	LEVER (D), SW	
229	3-325-347-01	SPRING, TENSION	
230	3-326-518-01	LEVER, D SWITCH	
231	X-3324-926-1	LEVER ASSY, H	
232	3-325-264-01	LEVER (B), IDLER	
233	3-578-224-21	WASHER, STOPPER	

SECTION 7
ELECTRICAL PARTS LIST

NOTE:
- Items marked " ★ " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- If there are two or more same circuitsin a set such as a stereophonic machine, only typical circuit parts may be indicated and capacitors and resistors in other same circuits may be omitted.

CAPACITORS:
MF:μF, PF:μμF.

RESISTORS
- All resistors are in ohms.
- F : nonflammable

COILS
- MMH : mH, UH : μH

SEMICONDUCTORS
In each case, U : μ, for example:
UA...: μA..., UPA...: μPA..., UPC...: μPC, UPD...: μPD...

ELECTRICAL PARTS

Ref.No.	Part No.	Description
901	A-3215-762-A	(US,Canadian,AEP,UK,E) ...PC BOARD ASSY, MAIN
	A-3215-806-A	(W-GERMANY)....PC BOARD ASSY, MAIN
902	*1-616-126-11	PC BOARD, HEADPHONE JACK
C1	1-163-087-00	CERAMIC CHIP 4PF 0.25PF 50V
C2	1-163-099-00	(US,Canadian,AEP,UK,E) ...CERAMIC CHIP 18PF 5% 50V
C2	1-163-101-00	(W-GERMANY)...CERAMIC CHIP 22PF 5% 50V
C3	1-163-588-91	(US,Canadian,AEP,UK,E) ...CERAMIC CHIP 18PF 5% 50V
C3	1-163-101-00	(W-GERMANY)...CERAMIC CHIP 22PF 5% 50V
C4	1-163-225-00	CERAMIC CHIP 8PF 0.25PF 50V
C5	1-163-141-00	CERAMIC CHIP 0.001MF 10% 50V
C6	1-124-435-00	ELECT 10MF 20% 6.3V
C7	1-163-087-00	CERAMIC CHIP 4PF 0.25PF 50V
C8	1-163-021-00	CERAMIC CHIP 0.01MF 5% 50V
C9	1-124-464-11	ELECT 0.22MF 20% 50V
C10	1-124-432-00	ELECT 47MF 20% 4V
C11	1-124-435-00	ELECT 10MF 20% 6.3V
C12	1-124-461-11	ELECT 4.7MF 20% 16V
C13	1-124-438-00	ELECT 1MF 20% 50V
C14	1-124-438-00	ELECT 1MF 20% 50V
C15	1-163-033-00	CERAMIC CHIP 0.022MF 50V
C16	1-163-125-00	CERAMIC CHIP 220PF 5% 50V
C17	1-163-017-00	CERAMIC CHIP 0.0047MF 10% 50V
C18	1-124-435-00	ELECT 10MF 20% 6.3V
C19	1-124-465-00	ELECT 0.47MF 20% 50V
C20	1-124-461-11	ELECT 4.7MF 20% 16V
C21	1-124-438-00	ELECT 1MF 20% 50V
C22	1-124-438-00	ELECT 1MF 20% 50V
C23	1-163-024-00	CERAMIC CHIP 0.018MF 10% 50V
C24	1-163-024-00	CERAMIC CHIP 0.018MF 10% 50V
C25	1-124-438-00	ELECT 1MF 20% 50V
C26	1-124-438-00	ELECT 1MF 20% 50V
C27	1-163-141-00	CERAMIC CHIP 0.001MF 10% 50V
C101	1-163-137-00	CERAMIC CHIP 680PF 5% 50V
C102	1-163-137-00	CERAMIC CHIP 680PF 5% 50V
C103	1-124-431-00	ELECT 33MF 20% 4V
C104	1-163-021-00	CERAMIC CHIP 0.01MF 5% 50V
C105	1-124-437-00	ELECT 2.2MF 20% 35V
C106	1-163-021-00	CERAMIC CHIP 0.01MF 5% 50V
C107	1-163-021-00	CERAMIC CHIP 0.01MF 5% 50V
C108	1-131-344-00	(W-GERMANY)...TANTALUM 0.33MF 10% 35V
C108	1-131-405-00	(US,Canadian,AEP,UK,E).... TANTALUM 0.33MF 20% 35V
C109	1-131-346-00	(W-GERMANY)...TANTALUM 0.68MF 20% 35V
C109	1-131-407-00	(US,Canadian,AEP,UK,E).... TANTALUM 0.68MF 20% 35V

ELECTRICAL PARTS

Ref.No.	Part No.	Description
C110	1-131-341-00	(W-GERMANY)...TANTALUM 0.1MF 20% 35V
C110	1-131-402-00	(US,Canadian,AEP,UK,E).... TANTALUM 0.1MF 20% 35V
C111	1-124-436-00	ELECT 3.3MF 20% 25V
C112	1-163-141-00	CERAMIC CHIP 0.001MF 10% 50V
C113	1-124-431-00	ELECT 33MF 20% 4V
C114	1-124-432-00	ELECT 47MF 20% 4V
C115	1-163-038-00	CERAMIC CHIP 0.1MF 25V
C116	1-163-038-00	CERAMIC CHIP 0.1MF 25V
C117	1-124-434-00	ELECT 220MF 20% 4V
C201	1-163-137-00	CERAMIC CHIP 680PF 5% 50V
C202	1-163-137-00	CERAMIC CHIP 680PF 5% 50V
C203	1-124-431-00	ELECT 33MF 20% 4V
C204	1-163-021-00	CERAMIC CHIP 0.01MF 5% 50V
C205	1-124-437-00	ELECT 2.2MF 20% 35V
C206	1-163-021-00	CERAMIC CHIP 0.01MF 5% 50V
C207	1-163-021-00	CERAMIC CHIP 0.01MF 5% 50V
C208	1-131-344-00	(W-GERMANY)...TANTALUM 0.33MF 10% 35V
C208	1-131-405-00	(US,Canadian,AEP,UK,E).... TANTALUM 0.33MF 20% 35V
C209	1-131-346-00	(W-GERMANY)...TANTALUM 0.68MF 10% 35V
C209	1-131-407-00	(US,Canadian,AEP,UK,E).... TANTALUM 0.68MF 20% 35V
C210	1-131-402-00	(W-GERMANY)...TANTALUM 0.1MF 10% 35V
C210	1-131-402-00	(US,Canadian,AEP,UK,E).... TANTALUM 0.1MF 20% 35V
C211	1-124-436-00	ELECT 3.3MF 20% 25V
C212	1-163-141-00	CERAMIC CHIP 0.001MF 10% 50V
C213	1-124-431-00	ELECT 33MF 20% 4V
C214	1-124-432-00	ELECT 47MF 20% 4V
C215	1-163-038-00	CERAMIC CHIP 0.1MF 25V
C216	1-163-038-00	CERAMIC CHIP 0.1MF 25V
C217	1-124-434-00	ELECT 220MF 20% 4V
C301	1-124-432-00	ELECT 47MF 20% 4V
C302	1-163-117-00	CERAMIC CHIP 100PF 5% 50V
C303	1-163-141-00	CERAMIC CHIP 0.001MF 10% 50V
C304	1-124-431-00	ELECT 33MF 20% 4V
C305	1-163-117-00	CERAMIC CHIP 100PF 5% 50V
C306	1-124-433-00	ELECT 100MF 20% 4V
C307	1-124-430-00	ELECT 22MF 20% 4V
C308	1-124-433-00	ELECT 100MF 20% 4V
C309	1-124-434-00	ELECT 220MF 20% 4V
C310	1-124-434-00	ELECT 220MF 20% 4V
C311	1-163-117-00	CERAMIC CHIP 100PF 5% 50V
C312	1-124-438-00	ELECT 1MF 20% 50V

ELECTRICAL PARTS

Ref.No.	Part No.	Description
C601	1-131-501-00	TANTALUM 3.3MF 10% 10V
C602	1-124-435-00	ELECT 10MF 20% 6.3V
C603	1-131-345-00	(W-GERMANY)...TANTALUM 0.47MF 10% 35V
C603	1-131-406-00	(US,Canadian,AEP,UK,E).... TANTALUM 0.47MF 20% 35V
CF1	1-567-166-00	FILTER, CERAMIC
CF2	1-567-177-00	FILTER, CERAMIC
CF3	1-567-166-00	FILTER, CERAMIC
CF4	1-567-164-00	VIBRATOR, CERAMIC
CT1-4 CV1-4	1-151-453-00	CAP, TUNING, POLYETHYLENE
D1	8-719-914-42	DIODE DA204K
D2	8-719-914-42	DIODE DA204K
D901	8-719-101-06	DIODE SR106D
D902	8-719-101-06	DIODE SR106D
FL1	1-235-171-00	FILTER, BAND PASS
HP301	8-825-537-51	HEAD, PLAYBACK PP238-3604D
IC1	8-759-908-89	IC CX20029
IC301	8-759-909-64	IC BA3404F
IC302	8-759-908-08	IC CX20085
IC303	8-759-919-92	IC BA5206BF
IC601	8-759-400-12	IC AN6612S
J301	1-507-723-00	JACK, EXTERNAL POWER (DC IN 3V)
J901	1-507-851-00	JACK (PHONES)
JP301	1-216-295-00	METAL CHIP 0 5% 1/10W
JP302	1-216-296-00	METAL CHIP 0 5% 1/8W
JP303	1-216-296-00	METAL CHIP 0 5% 1/8W
JP304	1-216-296-00	METAL CHIP 0 5% 1/8W
L1	1-402-162-11	ANTENNA, FERRITE-ROD (MW)
L2	1-459-520-11	(W-GERMANY)...COIL (WITH CORE)(FM RF)
L2	1-459-615-11	(US,Canadian,AEP,UK,E) ...COIL (WITH CORE)(FM RF)
L3	1-459-418-00	COIL (WITH CORE)(FM OSC)
L4	1-405-989-00	COIL, OSC (AM OSC)
L5	1-410-029-11	MICRO INDUCTOR 47UH
L101	1-410-013-11	MICRO INDUCTOR 2.2UH
L201	1-410-013-11	MICRO INDUCTOR 2.2UH
L301	1-410-013-11	MICRO INDUCTOR 2.2UH
M601	8-835-136-01	MOTOR, DC (MNR-8000A)
Q1	8-729-900-52	TRANSISTOR DTC114YK
Q2	8-729-900-52	TRANSISTOR DTC114YK
Q101	8-729-900-51	TRANSISTOR DTA114TK
Q201	8-729-900-51	TRANSISTOR DTA114TK
Q301	8-729-900-52	TRANSISTOR DTC114YK
Q302	8-729-900-52	TRANSISTOR DTC114YK

ELECTRICAL PARTS

Ref.No.	Part No.	Description
Q303	8-729-216-22	TRANSISTOR 2SA1162
Q601	8-729-400-16	TRANSISTOR 2SB956-S
R1	1-216-036-00	METAL CHIP 300 5% 1/10W
R2	1-216-103-00	METAL CHIP 180K 5% 1/10W
R3	1-247-879-00	CARBON 100K 5% 1/6W
R4	1-216-093-00	METAL CHIP 68K 5% 1/10W
R5	1-216-056-00	METAL CHIP 2K 5% 1/10W
R6	1-216-089-00	METAL CHIP 47K 5% 1/10W
R7	1-216-061-00	METAL CHIP 3.3K 5% 1/10W
R8	1-216-061-00	METAL CHIP 3.3K 5% 1/10W
R9	1-216-067-00	METAL CHIP 5.6K 5% 1/10W
R10	1-216-067-00	METAL CHIP 5.6K 5% 1/10W
R101	1-216-089-00	METAL CHIP 47K 5% 1/10W
R102	1-216-089-00	METAL CHIP 47K 5% 1/10W
R103	1-216-109-00	METAL CHIP 330K 5% 1/10W
R104	1-216-033-00	METAL CHIP 220 5% 1/10W
R105	1-216-070-00	METAL CHIP 7.5K 5% 1/10W
R106	1-216-071-00	METAL CHIP 8.2K 5% 1/10W
R108	1-216-073-00	METAL CHIP 10K 5% 1/10W
R109	1-216-052-00	METAL CHIP 1.3K 5% 1/10W
R110	1-216-075-00	METAL CHIP 12K 5% 1/10W
R111	1-216-099-00	METAL CHIP 120K 5% 1/10W
R112	1-216-049-00	METAL CHIP 1K 5% 1/10W
R113	1-216-049-00	METAL CHIP 1K 5% 1/10W
R114	1-216-046-00	METAL CHIP 750 5% 1/10W
R115	1-216-005-00	METAL CHIP 15 5% 1/10W
R201	1-216-089-00	METAL CHIP 47K 5% 1/10W
R202	1-216-089-00	METAL CHIP 47K 5% 1/10W
R203	1-216-109-00	METAL CHIP 330K 5% 1/10W
R204	1-216-033-00	METAL CHIP 220 5% 1/10W
R205	1-216-070-00	METAL CHIP 7.5K 5% 1/10W
R206	1-216-071-00	METAL CHIP 8.2K 5% 1/10W
R208	1-216-073-00	METAL CHIP 10K 5% 1/10W
R209	1-216-052-00	METAL CHIP 1.3K 5% 1/10W
R210	1-216-075-00	METAL CHIP 12K 5% 1/10W
R211	1-216-099-00	METAL CHIP 120K 5% 1/10W
R212	1-216-049-00	METAL CHIP 1K 5% 1/10W
R213	1-216-049-00	METAL CHIP 1K 5% 1/10W
R214	1-216-046-00	METAL CHIP 750 5% 1/10W
R215	1-216-005-00	METAL CHIP 15 5% 1/10W
R301	1-216-049-00	METAL CHIP 1K 5% 1/10W
R302	1-216-049-00	METAL CHIP 1K 5% 1/10W
R303	1-216-036-00	METAL CHIP 300 5% 1/10W
R304	1-216-036-00	METAL CHIP 300 5% 1/10W

ELECTRICAL PARTS

Ref.No.	Part No.	Description			
R305	1-216-021-00	METAL CHIP	68	5%	1/10W
R306	1-216-066-00	METAL CHIP	5.1K	5%	1/10W
R307	1-216-073-00	METAL CHIP	10K	5%	1/10W
R308	1-216-017-00	METAL CHIP	47	5%	1/10W
R309	1-216-049-00	METAL CHIP	1K	5%	1/10W
R310	1-216-030-00	METAL CHIP	160	5%	1/10W
R601	1-216-135-00	METAL CHIP	2.4	5%	1/8W
R602	1-216-135-00	METAL CHIP	2.4	5%	1/8W
R603	1-216-049-00	METAL CHIP	1K	5%	1/10W
R604	1-216-218-00	METAL CHIP	6.8K	5%	1/8W
RV101	1-230-676-11	RES, ADJ, METAL GLAZE 10K			
RV102	1-230-593-11	RES, VAR, CARBON 10K/10K (VOL)			
RV201	1-230-676-11	RES, ADJ, METAL GLAZE 10K			
RV202	1-230-593-11	RES, VAR, CARBON 10K/10K (VOL)			
RV601	1-228-357-00	RES, ADJ, METAL GLAZE 4.7K			
S301	1-554-843-11	SWITCH, SLIDE (FUNCTION)			
S302	1-570-114-11	SWITCH, SLIDE (DOLBY NR/FM SENS)			
S901	1-554-595-00	SWITCH, LEAF (POWER)			
S902	1-554-938-11	SWITCH, REEF (HEAD SELECT)			
S903	1-554-595-00	SWITCH, LEAF (ATS)			
T1	1-404-444-00	TRANSFORMER, IF 455KHZ			
TH601	1-806-800-11	THERMISTOR (POSITIVE)			
TH602	1-806-363-11	THERMISTOR (POSITIVE)			

ACCESSORY & PACKING MATERIAL

Part No.	Description
3-326-141-01	CUSHION
3-326-142-01	CASE, ACCESSORY
3-326-554-01	CUSHION
3-326-555-01	(US).....INDIVIDUAL CARTON
3-326-556-01	(Canadian,AEP,UK)...INDIVIDUAL CARTON
3-326-567-01	MAT, MIRROR
3-579-788-00	WASHER, STOPPER
3-703-913-01	(GRAY).....LABEL, COLOR
3-703-924-01	(YELLOW)...LABEL, COLOR
3-760-506-11	(UK,E).....MANUAL, INSTRUCTION
3-760-506-21	(US,Canadian)...MANUAL, INSTRUCTION
3-760-506-31	(Canadian).....MANUAL, INSTRUCTION
3-760-506-41	(AEP,UK).....MANUAL, INSTRUCTION
3-795-748-21	(US)...SAFETY INSTRUCTIONS, HEADPHONE
8-952-216-93	(E:GRAY).....MDR-E245/G SET
8-952-216-94	(E:YELLOW).....MDR-E245/Y SET
8-952-229-90	(US,Canadian,AEP,UK:YELLOW)...MDR-A25L/Y SET
8-952-229-92	(US,Canadian,AEP,UK:GRAY).....MDR-A25L/G SET
8-952-229-93	(RED).....MDR-A25L/R SET
X-3326-110-1	CASE ASSY, CARRYING

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